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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/800,192

03/12/2004

Suresh Rajan

60809-5003

8735

24341

7590

04/14/2006

MORGAN, LEWIS & BOCKIUS, LLP.
2 PALO ALTO SQUARE
3000 EL CAMINO REAL
PALO ALTO, CA 94306

EXAMINER

TRAN, ANH Q

ART UNIT

PAPER NUMBER

2819

DATE MAILED: 04/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/800,192

Applicant(s)

RAJAN ET AL.

Examiner

Anh Q. Tran

Art Unit

2819

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3/12/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The limitation recites "detecting a signal voltage level of the output signal" is vague and indefinite because it does not further limiting the invention but replacing sensing with detecting. Sensing and detecting is the same function, there are no two distinct functions described from the specification which performed these two function by one circuit.

Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The limitation recites "detecting a cross-over between the input signal and the selected reference voltage" is vague. What is cross-over? Clarification is requires.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Kleveland (5,528,168).

Claim 1, Kleveland shows a method comprising:
receiving (260, Fig. 2) an input signal (225); generating (230) an output data (234) in response to the input signal; and
dynamically terminating (250 and 240) the input signal in response to the input signal.

Claim 2, Kleveland shows the method according to claim 1 wherein the receiving, generating and dynamically terminating occur within a single integrated circuit (210).

Claim 3, Kleveland shows the method according to claim 1 wherein dynamically terminating comprising detecting (260) a signal voltage level of the input signal and causing a termination voltage level to change from a first voltage level (250) to a second voltage level (240, col. 5, lines 66-67) in response to the signal voltage level.

Claim 4, Kleveland shows the method according to claim 1 further comprising selecting (252 and 242) a selected reference voltage (V_{cc} or V_{ss}) from among a plurality of reference voltages (V_{cc} and V_{ss}) based on the output data.

Claim 5, Kleveland shows the method according to claim 1 wherein dynamically terminating further comprises sensing (260) a current associated with the input signal.

Claim 6, Kleveland shows a method comprising:
receiving (260) an input signal (225);
generating an output data (262) in response to the input signal;
sensing (230) the output data; and

dynamically terminating (240 or 250) the input signal in response to sensing the output data.

Claim 7, Kleveland shows the method according to claim 6, wherein dynamically terminating comprises selecting (242 and 252) between a plurality of termination circuits (240 and 250).

Claim 8, Kleveland shows the method according to claim 7, wherein one of the plurality of termination circuits drives the input signal high (250 connect to Vcc).

Claim 9, Kleveland shows the method according to claim 7, wherein one of the plurality of termination circuits drives the input signal low (240 connect to Vss).

Claim 10, Kleveland shows the method according to claim 7, wherein one of the plurality of termination circuits (250) drives the input signal to a predetermined voltage (Vcc is predetermined).

Claim 11, Kleveland shows the method according to claim 7, wherein selecting between the plurality of termination circuits occurs through a switch (242 or 252, col. 5, lines 66-67).

Claim 12, Kleveland shows the method according to claim 7, wherein selecting between the plurality of termination circuits occurs through a transistor (transistor, col. 14, lines 10-14).

Claim 13, Kleveland shows the method according to claim 6, wherein dynamically terminating comprising detecting (230 is the same circuit as applicant's circuit) a signal voltage level of the output signal and causing a termination voltage level

to change from a first voltage level (V_{cc}) to a second voltage level (V_{ss}) in response to the signal voltage level.

Claim 14, Kleveland shows the method according to claim 6, further comprising selecting a selected reference voltage (V_{cc} or V_{ss}) from among a plurality of reference voltages (V_{cc} and V_{ss}) based on the output data (262).

Claim 15, Kleveland shows the method according to claim 14, wherein generating the output data depends on the selected reference voltage (V_{cc} or V_{ss} , since signal 340 is based on the input which coupled to V_{cc} or V_{ss} by 252 or 242), and the method includes detecting a cross-over between the input signal and the selected reference voltage (selecting the reference voltage based on the input signal).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kleveland (5,528,168) in view of Manapat et al. (6,541,998).

Kleveland discloses the claimed invention except for first device is a memory device or a memory controller.

Manapat discloses a transmission line system including termination circuits (110, Fig. 6) in a memory device (156) and a memory controller (152).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide termination circuit of Kleveland in a memory device and memory controller of Manapat, in order to telecommunicate between memory device and memory controller.

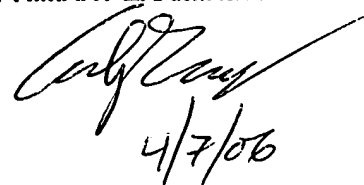
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh Q. Tran whose telephone number is 571-272-1813. The examiner can normally be reached on M-F (8:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rexford Barnie can be reached on 571-272-7492. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**ANH Q. TRAN
PRIMARY EXAMINER**



4/7/06